

Title (en)  
LED array

Title (de)  
LED-Anordnungen

Title (fr)  
Réseau à DEL

Publication  
**EP 2709171 A3 20160406 (EN)**

Application  
**EP 13020099 A 20130916**

Priority  
JP 2012204631 A 20120918

Abstract (en)  
[origin: EP2709171A2] An LED array includes a substrate and a semiconductor structure layer provided on the substrate. The semiconductor structure layer includes a first semiconductor layer, an active layer formed on the first semiconductor layer, and a second semiconductor layer formed on the active layer. The semiconductor structure layer is partitioned into a plurality of light emitting sections by grooves formed in the semiconductor structure layer. Each groove is defined by two opposite side faces of adjacent light emitting sections. Each side face has a recessed and protruding configuration. In one embodiment, the protrusions and recesses of one side face of one light emitting section fit in respective recesses and protrusions of a corresponding side face of an adjacent light emitting section.

IPC 8 full level  
**H01L 33/08** (2010.01); **H01L 33/20** (2010.01); **H01L 27/15** (2006.01)

CPC (source: EP US)  
**H01L 25/0753** (2013.01 - US); **H01L 27/153** (2013.01 - EP US); **H01L 27/156** (2013.01 - US); **H01L 33/24** (2013.01 - US); **H10K 59/86** (2023.02 - US); **H01L 33/0093** (2020.05 - EP US); **H01L 33/08** (2013.01 - EP US); **H01L 33/20** (2013.01 - EP US); **H01L 33/385** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (search report)

- [X] EP 1553641 A1 20050713 - SAKAI SHIRO [JP], et al
- [A] WO 2010014032 A1 20100204 - GLO AB [SE], et al
- [A] JP S5650586 A 19810507 - MITSUBISHI ELECTRIC CORP
- [A] JP H05129586 A 19930525 - HITACHI CABLE
- [A] US 2010289041 A1 20101118 - SHAKUDA YUKIO [JP]
- [A] US 2012018746 A1 20120126 - HSIEH MIN-HSUN [US]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2709171 A2 20140319; EP 2709171 A3 20160406; EP 2709171 B1 20200304**; JP 2014060277 A 20140403; JP 6068073 B2 20170125; US 2014077155 A1 20140320; US 9093603 B2 20150728

DOCDB simple family (application)  
**EP 13020099 A 20130916**; JP 2012204631 A 20120918; US 201314029674 A 20130917